CYLINDER FOR ENGINE AND THERMAL REFINING METHOD OF INNER FACE OF CYLINDER

Patent number: JP7004303
Publication date: 1995-01-10

Inventor: UCHIDA NAOKI; YANO TADAAKI; SUZUKI YOSHIRO
Applicant: MITSUBISHI MOTORS CORP

Classification:
- international: ***C21D1/09; F02F1/00;*** **C21D1/09; F02F1/00;** (IPC1-7): F02F1/00; C21D1/09
- european:
Application number: JP19930143773 19930615
Priority number(s): JP19930143773 19930615

Abstract of **JP7004303**

PURPOSE:To improve abrasion resistance and prevent generation of troubles such as generation of pit on the inner face of a cylinder bore by arranging adjoining hardened parts changing the positions in the circumferential direction of the cylinder bore, and setting the gap between the hardened parts in the axial direction narrower than the width of a piston ring. CONSTITUTION:An engine cylinder is provided with a thermally refined part 16 at least extending over a decided length in the axial direction of a cylinder bore from the positions of the bore inner face 12a contacted with piston rings 20-22 when a piston is on the top dead center. The thermally refined part 16 is provided with a plurality of hardened parts 15 long sideways hardened along the circumferential direction of the cylinder bore 12 by laser hardening, into a plurality rows respectively in the circumferential and axial directions. The hardened parts 15 adjoining in the axial direction of the cylinder bore 12 are arranged changing the positions in the circumferential direction, and the gap (s) between the hardened parts adjoining in the axial direction of the bore 12 is set narrower than the width of the piston ring 20-22. Hereby abrasion resistance of the cylinder bore inner face 12a or the like is improved.